Section 1-1

Tables and Graphs

Warm-up

Refer to the Chapter 1 Opener on page 5. Find the percent of accidental deaths caused by each of the following methods:

1. Motor Vehicle Accidents *47.8%*
2. Falls *14.8%*
3. Poisoning *8.9%*
4. Fires *4.7%*
5. Drownings *4.4%*
6. Choking *3.3%*
7. Firearms *1.7%*

Statistics: Collection, organizing, analyzing and interpreting information

Data: Information that is collected

Variable: A certain characteristic of the person or thing that is being examined

Population: The entire set or collection of objects in the study

Sample: A portion of the population, used to study the population

Survey: Gathering information to be used in a study

Random Sample: A sample where every member of the population has the same opportunity of being chosen

Example 1

Matt Mitarnowski, who has recently become a physician, takes a biopsy of a suspicious growth to check for malignancy. Identify the variable, population, and sample.

Variable: The condition of the growth.

Population: The entire growth.

Sample: The portion of the growth taken for the biopsy.

When reading a table...

1. What is being presented?

   Always be aware of what you are looking at.

2. Is the data trustworthy?

   Would you believe it if the Yankees organization said all Red Sox fans have no brains?

3. What conclusions can you draw from the data?

   Can you say something right away, or do you have to look further into the given information?

Example 2

Refer to the table on page 7. How many times as likely was a family to have an income of less than $15,000 if the head of the household had some high school, but no diploma rather than graduated from high school?

About twice as likely.
1.8 times, to be a little more specific.

How is this figured out?

Bar Graph: A graph that uses bars to represent the data

Circle Graph: A graph that is inside a circle. Each section is made up of a percentage of the whole and is created using central angles

Example 3

Continent	Area 1000 mi^2	Population (millions)
Africa	11,700	878
Antarctica	5,400	0
Asia	17,400	3,340
Australia	3,300	29
Europe	3,800	714
North America	9,400	292
Central & South America	6,900	481

Source: 1996 World Almanac and Book of Facts

Example 3b

If the areas of the continents were measured in km^2, would the circle graph be different? Why or why not?

No

The ratios remain the same, no matter the units